

Express Mail Label No. _____

Dated: _____

Docket No.: 09857/0202272-US0
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Toshiyoshi Fujiwara et al.

Application No.: 10/520,901

Confirmation No.: 2780

Filed: January 7, 2005

Art Unit: N/A

For: ONCOLYTIC VIRUS REPLICATING
SELECTIVELY IN TUMOR CELLS

Examiner: Not Yet Assigned

**RESPONSE TO NOTICE TO COMPLY WITH REQUIREMENTS
FOR PATENT APPLICATION CONTAINING NUCLEOTIDE
SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**MS Sequence
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is in response to the Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures, dated July 29, 2005. Applicants are submitting their response herewith within the two-month response period set to expire on September 29, 2005.

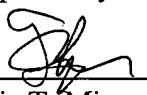
The U.S. Patent and Trademark Office has taken the position that the previous "Sequence Listing" in computer readable form did not comply with the requirements of Section 1.824 for the stated reason that it contained several raw sequence listing errors. However, we noticed that the copy of the Sequence Listing attached to the above-mentioned notice is different from the one we previously submitted in response to the Notice to Comply with Requirements For Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures, dated May 17, 2005. A copy of the documents submitted on June 29, 2005 is enclosed.

Resubmitted herewith in connection with the above-referenced patent application is a substitute, computer readable copy of the Sequence Listing that corrects the defects noted in the raw sequence listing. This is the same copy of the Sequence Listing submitted on June 29, 2005. No new matter has been added to the substitute Sequence Listing.

Applicants respectfully request the above-referenced patent application be placed upon the files for examination.

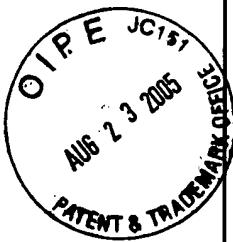
Dated: August 23, 2005

Respectfully submitted,

By  *Chris T. Mizumoto*
(53,970)

Chris T. Mizumoto

Registration No.: 42,899
DARBY & DARBY P.C.
P.O. Box 5257
New York, New York 10150-5257
(212) 527-7700
(212) 527-7701 (Fax)
Attorneys/Agents For Applicant



Application No. (if known): 10/520,901

Attorney Docket No.: 09857/0202272-US0

Pct

Certificate of Express Mailing Under 37 CFR 1.10

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, Airbill No. EV691013229-US in an envelope addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on August 23, 2005
Date

Lillian Garcia
Signature

Lillian Garcia

Typed or printed name of person signing Certificate

Registration Number, if applicable

Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

- Response to Notice to Comply with Requirements for Patent Application Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures (2 pgs)
- A Copy of Notification (2 pgs) w/ a Copy of Error Report (7 pgs)
- Statement Pursuant to 37 CFR 1.821 (f) (2 pgs)
- A Paper Copy of Sequence Listing (4 pgs)
- One (1) Sequence Listing Diskette
- A Copy of Documents Submitted on June 29, 2005 (12 pgs)
- Return Receipt Postcard



UNITED STATES PATENT AND TRADEMARK OFFICE

C. T. Mizumoto
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| | | |
|---|--|---------------------------------------|
| U.S. APPLICATION NUMBER NO. 10/520,901 | FIRST NAMED APPLICANT Toshiyoshi Fujiwara | ATTY. DOCKET NO. 09857/0202272-US0 |
| INTERNATIONAL APPLICATION NO. PCT/JP03/08573 | | |
| I.A. FILING DATE 07/07/2003 | | PRIORITY DATE 07/08/2002 |

7278
DARBY & DARBY P.C.
P. O. BOX 5257
NEW YORK, NY 10150-5257

DUE: Sept. 29, 2005

Docketed on 8/3/05 by L19 for

Docketed without file

Attorney _____

Date Mailed: 07/29/2005

2/28/06

CONFIRMATION NO. 2780
371 FORMALITIES LETTER



OC000000016650574

**NOTIFICATION TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS
CONTAINING NUCLEOTIDE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- For Rules Interpretation, call (571) 272-0951
- For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patentin Software Program Help @ ebc@uspto.gov

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5).

A copy of this notice MUST be returned with the response.

WINSTON M AL VARADO

Telephone: (703) 308-9140 EXT 206

PART 2 - OFFICE COPY

U.S. APPLICATION NUMBER NO.

10/520,901

INTERNATIONAL APPLICATION NO.

PCT/JP03/08573

ATTY. DOCKET NO.

09857/0202272-US0

FORM PCT/DO/EO/922 (371 Formalities Notice)

5020

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

10/520,901

Source:

PC/10

Date Processed by STIC:

1/24/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05): U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Mail this report with the notice.

Whitton/Burkhardt
National Stage Processing
Patent Specialist
(703) 305-6421

Raw Sequence Listing Error Summary

| <u>ERROR DETECTED</u> | <u>SUGGESTED CORRECTION</u> | <u>SERIAL NUMBER:</u> <u>10/520, 901</u> |
|--|---|--|
| ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE | | |
| 1 <input type="checkbox"/> Wrapped Nucleic | The number/text at the end of each line "wrapped" down to the next line. This may occur if your file | |
| <input type="checkbox"/> Wrapped Aminos | was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping." | |
| 2 <input type="checkbox"/> Invalid Line Length | The rules require that a line not exceed 72 characters in length. This includes white spaces. | |
| 3 <input type="checkbox"/> Misaligned Amino Numbering | The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead. | |
| 4 <input type="checkbox"/> Non-ASCII | The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text. | |
| 5 <input type="checkbox"/> Variable Length | Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing. | |
| 6 <input type="checkbox"/> PatentIn 2.0 "bug" | A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences. | |
| 7 <input type="checkbox"/> Skipped Sequences (OLD RULES) | Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped | |
| | Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences. | |
| 8 <input type="checkbox"/> Skipped Sequences (NEW RULES) | Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000 | |
| 9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES) | Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents. | |
| 10 <input type="checkbox"/> Invalid <213> Response | Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence | |
| 11 <input type="checkbox"/> Use of <220> | Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules) | <i>FYI</i> |
| 12 <input type="checkbox"/> PatentIn 2.0 "bug" | Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk. | |
| 13 <input type="checkbox"/> Misuse of n/Xaa | "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid | |



PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/520,901

DATE: 01/24/2005
TIME: 10:01:10

Input Set : A:\PTO.YF.txt
Output Set: N:\CRF4\01242005\J520901.raw

2 <110> APPLICANT: KANSAI TLO
W--> 3 <120> TITLE OF INVENTION: Selective Replication of Tumor-specific Replication-competent Adenovirus

W--> 4 on Tumor Cells

W--> 5 <130> FILE REFERENCE: 42002JP

W--> 6 <140> CURRENT APPLICATION NUMBER: 10/520,901

7 <141> CURRENT FILING DATE: 2005-01-07

W--> 8 <160> NUMBER OF SEQ ID: 8

9 <170> SOFTWARE: PatentIn Ver. 2.1

11 <210> SEQ ID NO: 1

12 <211> LENGTH: 899

13 <212> TYPE: DNA

14 <213> ORGANISM: 293 cell

W--> 15 <400> SEQUENCE: 1

16 acaccgggac taaaaatgag acatattatc tgccacggag gtgttattac cgaagaaatg
17 gccgccagtc ttttggacca gctgatcgaa gaggtactgg ctgataatct tccacccct
18 agccattttg aaccacctac cttcacgaa ctgtatgatt tagacgtgac gggcccccga
19 gatcccaacg aggaggcggt ttcgcagatt tttcccgact ctgtaatgtt ggcgggtcag
20 gaagggattt acttactcac ttttccggcg gcccgggtt ctccggagcc gcctcacctt
21 tcccgccagc ccgagcagcc ggagcagaga gccttgggtc cggttctat gccaaacctt
22 gtaccggagg tgatcgatct tacctgcac gaggtggct ttccacccag tgacgacgag
23 gatgaagagg gtgaggagtt tttgttagat tatgtggagc accccggca cggttgcagg
24 tcttgtcatt atcaccggag gaatacgggg gaccagata ttatgtttc gttttctat
25 atgaggaccc gtggcatgtt tgtctacagt cctgtgtctg aacctgagcc tgagcccgag
26 ccagaaccgg agcctgcaag acctaccggc cggtctaaaa tggcgctgc tatcttgaga
27 cggccgacat cacctgtgc tagagaatgc aatagtagta cgatagctg tgactccgg
28 cttctaaaca cacccctgtgataccacccg gtgtcccgcc tttgtcccat taaaccagg
29 gccgtgagag ttgttggcgcc tggccaggct gtgaatgtt tggaggactt gcttaacgag
30 cttggcaac ctggactt gagctgtaaa cgccccaggc cataagggtt aaacctgtg
32 <210> SEQ ID NO: 2
33 <211> LENGTH: 1823
34 <212> TYPE: DNA

35 <213> ORGANISM: 293 cell

W--> 36 <400> SEQUENCE: 2

37 ctgacacctat ggaggcttgg gagggtttgg aagattttc tgctgtgcgt aacttgctgg
38 aacagagctc taacagtacc tcttgggttt ggagggttct gtggggctca tccaggca
39 agtttgtctg cagaattaag gaggattaca agtggaaatt tgaagagctt ttgaaatcct
40 gtgggtgagct gtttggattct ttgaatctgg gtcaccaggc gctttccaa gagaaggctca
41 tcaagacttt ggattttcc acaccggggc ggcgtgcggc tgctgttgc tttttggatt
42 ttataaaaggtaaaatggagc gaagaaaccc atctgagccgg ggggtacctg ctggattttc
43 tggccatgca tctgtggaga gccgttgcgtt gacacaagaa tcgcctgcata ctgttgc
44 ccgtccgccc ggcgataata ccgacggagg agcagcagca gcaaggaggag gaagccaggc
45 ggcggccgca ggagcagagc ccatggaaacc cgagagccgg cctggaccctt cgggaaatgaa
46 tgggttgcgttacag tggctgaac ttttgcata actgagacgc attttgcata ttacagaggaa

pp 1-4
Does Not Comply
Corrected Diskette Needed

invalid response - see item 10 on Error Summary Sheet

please align your cumulative totals per 1.822 of sequence rules, the totals are aligned at right margin

60
120
180
240
300
360
420
480
540
600
660
720
780
840
899

300
360
420
480
540
600

please align 1/24/05

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/520,901

DATE: 01/24/2005
TIME: 10:01:10

Input Set : A:\PTO.YF.txt
Output Set: N:\CRF4\01242005\J520901.raw

47 tgggcagggg ctaaaggggg taaagagggg gcggggggct tgtgaggcta cagaggaggg
48 taggaatcta gcttttagct taatgaccag acaccgtctt gagtgttata ctttcaaca
49 gatcaaggat aattgcgcta atgagcttga tctgctggcg cagaagtattt ccatagagca
50 gctgaccact tactggctgc agccagggg tgatTTTgag gaggcttata gggtatatgc
51 aaagggtggca cttaggcccag attgcaagta caagatcagc aaactttaa atatcaggaa
52 ttgttgctac atttctggga acggggccga ggtggagata gatacggagg atagggtggc
53 cttagatgt agcatgataa atatgtggcc gggggtgctt ggcattggacg ggggtggat
54 tatgaatgtt aggtttactg gcccccaattt tageggtacg gtttccctgg ccaataccaa
55 ctttatccca cacgggttaa gcttctatgg gtttaacaat acctgtgtgg aagcctggac
56 ctagttaagg gttcggggct gtgccttta ctgtgtgtgg aagggggtgg tttgtcgccc
57 caaaagcagg gcttcaattt agaaatgcctt ctttggaaagg ttttgccttgg gtatcctgtc
58 tgagggttaac tccagggtgc gccacaatgt ggcctccgac ttttttttgc ttttttttgc
59 gaaaagcgtg gctgtgatta agcataacat ggtatgtggc aactgcgagg acagggcctc
60 tcagatgttgc acctgtgtgg acggcaactg tcacccgtgtt aagaccattt acgttagccag
61 ccactctcgc aaggcctggc cagtgtttga gcataacata ctgaccgcgtt gtttcccttgc
62 tttgggttaac aggagggggg ttttcccttacc ttaccaatgc aatttggatc acactaagat
63 attgcttgag cccgagagca ttttccaaatgtt gtttggaaagg ggggttttgc acatgaccat
64 gaagatctgg aagggtgttgc ggtacgttgc gacccgcacc aggtgcagac ctttttttgc
65 tggcggtaaa catatttagga accagccgtt gatgtgttgc gtttcccttgc ttttcccttgc
66 cgatcacttgc gtgttgcctt gtttcccttgc ttttcccttgc ttttcccttgc ttttcccttgc
67 ttgaggtact gaaatgtgttgc ggc

660 720
780 840
900 960
1020 1080
1140 1200
1260 1320
1380 1440
1500 1560
1620 1680
1740 1800
1823

69 <210> SEQ ID NO: 3

70 <211> LENGTH: 605

71 <212> TYPE: DNA

72 <213> ORGANISM: 293 cell

W--> 73 <400> SEQUENCE: 3

74 tgcattttagg gcccccaattt ccgccttctt ccctcccccc ccccttaacgt tactggccgc
75 agccgcgttgg aataaggccg gtgtgcgtt gtctatatgt gatTTTccac catattggcc
76 tcttttggca atgtgagggc ccggaaacctt ggccttgcgtt ttttgcgttgc catttcttgc
77 ggtctttccc ctctcgccaa aggaatgcctt ggtctgttgc atgtcgtaa ggaaggcgtt
78 cctctggaaag cttcttgcgtt acaaacaacg tctgtgttgc ccctttgcgttgc gcaagcggaaac
79 cccccacccgtt ggcacacggc cctctggccgc caaaagccac gtgtataaga tacacccgttgc
80 aaggcggcac aaccccaatgtt ccacgttgc agttggatag ttgtggaaag agtcaaatgg
81 ctctccttcaaa ggttatttcaaa caagggggttgc aaggatgttgc agaagggttgc ccatttgc
82 gatctgttgc tggggccttgc gtgcacatgtt ttttgcgttgc tttagtgcgttgc gtttttttttttt
83 cgtcttagggc ccccaacca cggggacgtt gtttccctt gaaaaacacg atgataagcc
84 tgccca

60 120
180 240
300 360
420 480
540 600

605

86 <210> SEQ ID NO: 4

87 <211> LENGTH: 455

88 <212> TYPE: DNA

89 <213> ORGANISM: 293 cell

W--> 90 <400> SEQUENCE: 4

91 tggcccttcc ctcgggttac cccacagccctt aggccgattt gaccccttctt cgttggggcc
92 ctcgttggcg tccctgcacc ctggggacgcg ggggggggggggggggggggggggggggggggggggggg
93 agaccccccgg gtcggcccccgg aacgggttgcg ctgttggggcc cgggggggggggggggggggggggggg
94 ttggggggcc cagacggccca ggaccggcgctt cccacgttgc cggggggactt ggggggggggggggg
95 gcacccgttcc ttggggcccttca ctttccatgtt ccgttcccttcc cggccggacc cccgggggggggg
96 cccaccccttc cccggggccccc ggccggccccc ctttccggcc ctttccatgtt ccgttcccttcc
97 ttggggggccccc cccggggccccc ctttccggcc ctttccatgtt ccgttcccttcc cggccggacc

60 120
180 240
300 360
420

RA
SEQUENCE LISTING
PATENT APPLICATION: US/10/520,901

DATE: 01/24/2005
TIME: 10:01:10

Input Set : A:\PTO.YF.txt
Output Set: N:\CRF4\01242005\J520901.raw

98 gcacgtggga agccctggcc ccggccaccc ccgcgcg 455
100 <210> SEQ ID NO: 5
101 <211> LENGTH: 20
102 <212> TYPE: DNA
103 <213> ORGANISM: 293 cell
W--> 104 <400> SEQUENCE: 5
105 acaccgggac taaaaatgag 20
107 <210> SEQ ID NO: 6
108 <211> LENGTH: 21
109 <212> TYPE: DNA
110 <213> ORGANISM: 293 cell
W--> 111 <400> SEQUENCE: 6
112 cacaggtta caccttatgg c 21
114 <210> SEQ ID NO: 7
115 <211> LENGTH: 20
116 <212> TYPE: DNA
117 <213> ORGANISM: 293 cell
W--> 118 <400> SEQUENCE: 7
119 ctgacccat ggaggcttgg 20
121 <210> SEQ ID NO: 8
122 <211> LENGTH: 21
123 <212> TYPE: DNA
124 <213> ORGANISM: 293 cell
W--> 125 <400> SEQUENCE: 8
126 gccccacacat ttcaatccat c 21

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/520,901

DATE: 01/24/2005
TIME: 10:01:11

PYI
Input Set : A:\PTO.YF.txt
Output Set: N:\CRF4\01242005\J520901.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 3
Seq#:2; Line(s) 37,38,39,40,41,42,43,46,48,49,50,53,54,55,56,57,58,61,62,63
Seq#:2; Line(s) 66
Seq#:3; Line(s) 74,75,76,77,81,82,83
Seq#:4; Line(s) 91,95,97

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/520,901

DATE: 01/24/2005
TIME: 10:01:11

Input Set : A:\PTO.YF.txt
Output Set: N:\CRF4\01242005\J520901.raw

L:3 M:283 W: Missing Blank Line separator, <120> field identifier
L:5 M:283 W: Missing Blank Line separator, <130> field identifier
L:6 M:283 W: Missing Blank Line separator, <140> field identifier
L:8 M:283 W: Missing Blank Line separator, <160> field identifier
L:15 M:283 W: Missing Blank Line separator, <400> field identifier
L:36 M:283 W: Missing Blank Line separator, <400> field identifier
L:73 M:283 W: Missing Blank Line separator, <400> field identifier
L:90 M:283 W: Missing Blank Line separator, <400> field identifier
L:104 M:283 W: Missing Blank Line separator, <400> field identifier
L:111 M:283 W: Missing Blank Line separator, <400> field identifier
L:118 M:283 W: Missing Blank Line separator, <400> field identifier
L:125 M:283 W: Missing Blank Line separator, <400> field identifier

Atty Docket No.: 09857/0202272-US0

Inventor: Toshiyoshi Fujiwara et al.

Appn: 10/520,901-Conf. **Filed:** Jan. 7, 2005

Title: ONCOLYTIC VIRUS REPLICATING SELECTIVELY
IN TUMOR CELLS

Documents:

Certificate of Express Mailing Under 37 CFR 1.10 (1 pg)
Response to Notice to File Missing parts of application (2 pp)
Copy of Notice (2 pp)
1 Sequence Listing Diskette
Sequence Listing Paper Copy (4 pp)
Sequence Listing Transmittal (2 pp)

Via: Express Mail: Airbill No. *441165040-us*

Sender Initials: CTM/mch Date: June 29, 2005

B.W. Lee

Application No. (if known): 10/520,901

Attorney Docket No.: 09857/0202272-US0

Certificate of Express Mailing Under 37 CFR 1.10

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, Airbill No. in an envelope addressed to:

EV 441165040-us
MS Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on June 29, 2005
Date

B.W. Lee

Signature

B.W. Lee

Typed or printed name of person signing Certificate

Registration Number, if applicable

Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

Response to Notice to File Missing Parts of Application (2 pp)
Copy of Notice (2 pp)
Statement Pursuant to 37 CFR 1.821(f)(2 pp)
Paper copy of Sequence Listing (4 pp)
1 Sequence Listing Diskette
Return Receipt Postcard

Express Mail Label No.

Dated: _____

Docket No.: 09857/0202272-US0
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Toshiyoshi Fujiwara et al.

Application No.: 10/520,901

Confirmation No.: 2780

Filed: January 7, 2005

Art Unit: N/A

For: ONCOLYTIC VIRUS REPLICATING
SELECTIVELY IN TUMOR CELLS

Examiner: Not Yet Assigned

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION

MS Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

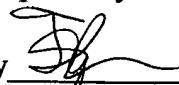
Dear Sir:

In response to the Notice to File Missing Parts of Application – Filing Date Granted mailed May 17, 2005, Applicant respectfully submits a Sequence Listing Diskette, a Sequence Listing Paper Copy, a Statement Pursuant to 37 CFR 1.821(f), and Part 2 Copy of Notice.

The Commissioner is authorized to charge any deficiency of up to \$300.00 or credit any excess in this fee to Deposit Account No. 04-0100.

Dated: June 29, 2005

Respectfully submitted,

By  *Chris T. Mizumoto*
(53,970)

Registration No.: 42,899
DARBY & DARBY P.C.
P.O. Box 5257
New York, New York 10150-5257
(212) 527-7700
(212) 527-7701 (Fax)
Attorneys/Agents For Applicant



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

M. Hasegawa.

| | | |
|-------------------------------|-----------------------|-------------------|
| U.S. APPLICATION NUMBER NO. | FIRST NAMED APPLICANT | ATTY. DOCKET NO. |
| 10/520,901 | Toshiyoshi Fujiwara | 09857/0202272-US0 |
| INTERNATIONAL APPLICATION NO. | | PCT/JP03/08573 |
| LA. FILING DATE | PRIORITY DATE | |
| 07/07/2003 | 07/08/2002 | |

7278
 DARBY & DARBY P.C.
 P. O. BOX 5257
 NEW YORK, NY 10150-5257

DUE: July 17, 2005
 Docketed on 5/24/03 by LG for
 Docketed without file
 Attorney _____

Date Mailed: 05/17/2005
12/17/03.

**NOTIFICATION TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS
 CONTAINING NUCLEOTIDE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- For Rules Interpretation, call (571) 272-0951
- For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patentin Software Program Help @ ebc@uspto.gov

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

WINSTON M ALVARADO

Telephone: (703) 308-9140 EXT 206

PART 1 - ATTORNEY/APPLICANT CO

| U.S. APPLICATION NUMBER NO. | INTERNATIONAL APPLICATION NO. | ATTY. DOCKET NO. |
|-----------------------------|-------------------------------|-------------------|
| 10/520,901 | PCT/JP03/08573 | 09857/0202272-US0 |

FORM PCT/DO/EO/922 (371 Formalities Notice)

Express Mail Label No.

Dated: _____

Docket No.: 09857/0202272-US0
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Toshiyoshi Fujiwara et al.

Application No.: 10/520,901

Confirmation No.: 2780

Filed: January 7, 2005

Art Unit: N/A

For: **ONCOLYTIC VIRUS REPLICATING
SELECTIVELY IN TUMOR CELLS**

Examiner: Not Yet Assigned

STATEMENT PURSUANT TO 37 CFR 1.821(f)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Submitted herewith for filing in connection with the above-referenced patent application is a labeled, computer readable copy of the Sequence Listing included in the application.

The sequence information in paper copy of the Sequence Listing contained on pages 1 to 4 of said Sequence Listing, as required by 37 CFR 1.821(c), and the sequence information in computer readable form of the Sequence Listing described above, as required by 37 CFR 1.821(e), are the same as required by 37 CFR 1.821(f). No new matter is added.

Early favorable consideration of the patent application is respectfully solicited.

Dated: June 29, 2005

Respectfully submitted,

By Chris T. Mizumoto FLYNN BARRETT
(53,970)

Chris T. Mizumoto

Registration No.: 42,899
DARBY & DARBY P.C.
P.O. Box 5257
New York, New York 10150-5257
(212) 527-7700
(212) 527-7701 (Fax)
Attorneys/Agents For Applicant

00450122.TXT
SEQUENCE LISTING

<110> Fujiwara, Toshiyuki
Tanaka, Noriaki
Kyo, Satoru
Shirakiya, Yoshiko
Kawashima, Takeshi

<120> ONCOLYTIC VIRUS REPLICATING SELECTIVELY IN TUMOR CELLS

<130> 09857/0202272-US0

<140> 10/520,901
<141> 2005-01-07

<150> PCT/JP2003/008573
<151> 2003-07-07

<150> 2002-198941
<151> 2002-07-08

<160> 8

<170> PatentIn version 3.2

<210> 1
<211> 899
<212> DNA
<213> adenovirus

<400> 1
acaccgggac tgaaaatgag acatattatc tgccacggag gtgttattac cgaagaaatg 60
gccgccagtc ttttggacca gctgatcgaa gaggtactgg ctgataatct tccacccct 120
agccattttgc aaccacccac cttcacgaa ctgtatgatt tagacgtgac ggccccgaa 180
gatcccaacg aggaggcggt ttccgcagatt tttcccgact ctgtaatgtt ggccgtgcag 240
gaagggatttgc acttactcac ttttccgccc gcgcgggtt ctccggagcc gcctcacctt 300
tcccgccagc ccgagcagcc ggagcagaga gccttgggtc cggttctat gccaaacctt 360
gtaccggagg tgatcgatct tacctgccac gaggctggct ttccacccag tgacgacgag 420
gatgaagagg gtgaggagtt tgtgttagat tatgtggagc accccgggca cggttgcagg 480
tcttgcatt atcaccggag gaatacgggg gacccagata ttatgtgttc gctttctat 540
atgaggacccgtt gtggcatgtt tgtctacagt cctgtgtctg aacctgagcc tgagcccgag 600
ccagaaccgg agcctgcaag acctaccgc cgtcctaaaa tggcgctgc tatcctgaga 660
cgcccgacat cacctgtgtc tagagaatgc aatagtagta cggatagctg tgactccggt 720
ccttctaaca cacccctgaa gatacaccgg gtgggtccgc tggcccccattaaaccagg 780
gccgtgagag ttgggtggcg tcgcccaggct gtggaaatgtt tcgaggactt gcttaacgag 840
cctggggcaac ctttggactt gagctgtaaa cgcccccaggc cataagggtgt aaacctgtg 899

<210> 2

00450122.TXT

<211> 1823
 <212> DNA
 <213> adenovirus

| | | |
|---|------|--|
| <400> 2 | | |
| ctgacctcat ggaggcttgg gagtgtttgg aagattttc tgctgtgcgt aacttgctgg | 60 | |
| aacagagctc taacagtacc tcttggttt ggaggttct gtggggctca tcccaggcaa | 120 | |
| agttagtctg cagaattaag gaggattaca agtggaaatt tgaagagctt ttgaatcct | 180 | |
| gtggtagct gtttgattct ttgaatctgg gtcaccaggc gctttccaa gagaaggtca | 240 | |
| tcaagacttt ggattttcc acaccggggc gcgcgcggc tgctgttgc ttggat | 300 | |
| ttataaagga taaatggagc gaagaaaccc atctgagcgg ggggtacctg ctggat | 360 | |
| tggccatgca tctgtggaga gcgggtgtga gacacaagaa tcgcctgcta ctgtgtctt | 420 | |
| ccgtccgccc ggcataata ccgacggagg agcagcagca gcagcaggag gaagccaggc | 480 | |
| ggcggcggca ggacggagc ccatggaaacc cgagagccgg cctggaccct cggaaatgaa | 540 | |
| tgttgacag gtggctgaac tgtatccaga actgagacgc atttgacaa ttacagagga | 600 | |
| tggcagggg ctaaaggggg taaagagggg gcgggggct tgtgaggcta cagaggaggc | 660 | |
| taggaatcta gcttttagct taatgaccag acaccgtcct gagtgtatta ctggatcaaca | 720 | |
| gatcaaggat aattgcgcta atgagcttga tctgtggcg cagaagtatt ccatagagca | 780 | |
| gctgaccact tactggctgc agccaggggg tgatttgag gaggctatta gggtatatgc | 840 | |
| aaagggtggca cttaggccag attgcaagta caagatcagc aaacttgtaa atatcaggaa | 900 | |
| ttgttgctac atttctggga acggggccga ggtggagata gatacggagg atagggtggc | 960 | |
| ctttagatgt agcatgataa atatgtggcc ggggtgctt ggcattggacg ggtggttat | 1020 | |
| tatgaatgta aggttactg gcccccaattt tagcggtacg gtttcttgg ccaataccaa | 1080 | |
| ccttattccta cacgggttaa gcttctatgg gtttaacaat acctgtgtgg aagcctggac | 1140 | |
| cgtgttaagg gttcggggct gtgccttta ctgctgtgg aaggggggtgg tgtgtcgccc | 1200 | |
| caaaagcagg gcttcaatta agaaatgcct ctttggaaagg tgtaccttgg gtatcctgtc | 1260 | |
| tgagggttaac tccagggtgc gccacaatgt ggcctccgac tgtggttgc tcatgctagt | 1320 | |
| gaaaagcgtg gctgtgatta agcataacat ggtatgtggc aactgcgagg acaggccctc | 1380 | |
| tcagatgctg acctgctcgg acggcaactg tcacctgctg aagaccattc acgtagccag | 1440 | |
| ccactctcgc aaggcctggc cagtgttga gcataacata ctgacccgct gttccttgc | 1500 | |
| tttgggttaac aggagggggg tttccctacc ttaccaatgc aatttgagtc acactaagat | 1560 | |
| attgcttgc gggagagca tgtccaaggta gaacctgaac ggggtgtttg acatgaccat | 1620 | |
| gaagatctgg aaggtgctga ggtacgtga gacccgcacc aggtgcagac cctgcgagtg | 1680 | |
| tggcggtaaa catatttagga accagcctgt gatgctggat gtgaccggagg agctgaggcc | 1740 | |

00450122.TXT

| | | | | | | |
|------------|------------|------------|-----------|------------|------------|------|
| cgatcacttg | gtgctggcct | gcacccgcgc | ttagttggc | tctagcgatg | aagatacaga | 1800 |
| ttgaggtact | gaaatgtgtg | ggc | | | | 1823 |

<210> 3
<211> 605
<212> DNA
<213> picornavirus

| | | | | | | |
|------------|------------|-------------|------------|-------------|------------|-----|
| <400> 3 | | | | | | |
| tgcatctagg | gcggccaatt | ccgccccctct | ccctcccccc | cccctaacgt | tactggccga | 60 |
| agccgcttgg | aataaggccg | gtgtgcgttt | gtctatatgt | gatttccac | catattgccg | 120 |
| tctttggca | atgtgagggc | ccggaaacct | ggccctgtct | tcttgacgag | cattcctagg | 180 |
| ggtctttccc | ctctcgccaa | aggaatgcaa | ggtctgttga | atgtcgtgaa | ggaagcagtt | 240 |
| cctcttggaa | cttcttgaag | acaaacaacg | tctgtagcga | ccctttgcag | gcagcggAAC | 300 |
| cccccacctg | gcgacaggtg | cctctgcggc | caaaagccac | gtgtataaga | tacacctgca | 360 |
| aaggcggcac | aaccccagtg | ccacgttgtg | agttggatag | ttgtggaaag | agtcaaatgg | 420 |
| ctctcctcaa | gcgtattcaa | caaggggctg | aaggatgccc | agaaggatacc | ccattgtatg | 480 |
| ggatctgatc | tggggcctcg | gtgcacatgc | tttacatgtg | tttagtcgag | gttaaaaaaa | 540 |
| cgtctaggcc | ccccgaacca | cggggacgtg | gttttccccc | gaaaaaacacg | atgataagct | 600 |
| tgccca | | | | | | 605 |

<210> 4
<211> 455
<212> DNA
<213> Homo sapiens

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| <400> 4 | | | | | | |
| tggccctcc | ctcgggttac | cccacagcct | aggccgattc | gacctctctc | cgctggggcc | 60 |
| ctcgctggcg | tccctgcacc | ctgggagcgc | gagcggcgcg | cgggcgggga | agcgcggccc | 120 |
| agaccccccgg | gtccgcccgg | agcagctgcg | ctgtcggggc | caggccgggc | tcccagtgg | 180 |
| ttcgcgggca | cagacgccc | ggaccgcgct | ccccacgtgg | cggagggact | ggggacccgg | 240 |
| gcacccgtcc | tgccccttca | ccttccagct | ccgcctcctc | cgcgcggacc | ccgccccgtc | 300 |
| ccgacccctc | ccgggtcccc | ggcccgccc | cctccgggccc | ctcccagccc | ctccccttcc | 360 |
| tttccgcggc | cccgcctct | cctcgcggcg | cgagttcag | gcagcgctgc | gtcctgctgc | 420 |
| gcacgtggga | agccctggcc | ccggccaccc | ccgcgc | | | 455 |

<210> 5
<211> 20
<212> DNA
<213> artificial

<220>

<223> primer

<400> 5

acaccgggac tgaaaatgag

20

<210> 6

<211> 21

<212> DNA

<213> artificial

<220>

<223> primer

<400> 6

cacaggttta caccttatgg c

21

<210> 7

<211> 20

<212> DNA

<213> artificial

<220>

<223> primer

<400> 7

ctgacacctat ggaggcttgg

20

<210> 8

<211> 21

<212> DNA

<213> artificial

<220>

<223> primer

<400> 8

gcccacacat ttcagtacct c

21

BEST AVAILABLE COPY

Sequence Listing

Applicant: Toshiyoshi Fujiwara et al.
Date Saved to Disk: June 29, 2005
Title: ONCOLYTIC VIRUS REPLICATING
SELECTIVELY IN TUMOR CELLS
Reference/Docket No.: 09857/0202272-US0
Appl. No.: 10/520,901
Filed: January 7, 2005
Operating System: Windows NT 4.0